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Utah Division Interstate Access Change Request Guidance Document

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I. Background

The Federal Highway Administration (FHWA) works with the State highway departments in maintaining the operational flow and mobility of the Interstate system, thereby minimizing congestion. Therefore, **FHWA has retained all approval authority to control all access to the Interstate system.** This is necessary to protect the integrity of the Interstate System and the extensive past and future investment associated with it.

The existing Interstate System has been designed and constructed with some capacity and flexibility to accommodate future needs. As land use and travel patterns change within the proximity of the Interstate System, it sometimes requires an existing interchange to be revised or new access may be required. When these needs arise, great care must be exercised in the planning and designing of the facility to ensure proposed improvements do not diminish the capacity, operating efficiency and safety of the existing Interstate System. As such, the Interstate System Access Informational Guide (ISAIG) should be utilized in the development, review, and approval of Interstate Access Change Requests (IACR). The FHWA will provide an electronic copy upon request, or it can be found here:

<https://www.fhwa.dot.gov/design/interstate/pubs/access/access.pdf>.

It is in the national interest to preserve and enhance the Interstate System to meet the needs of the 21st Century by assuring that it provides the highest level of service in terms of safety and mobility. Full control of access along the Interstate mainline and ramps, along with control of access on the crossroad at interchanges, is critical to providing such service. Therefore, FHWA's decision to approve new or revised access points to the Interstate System under 23 U.S.C. 111 must be supported by substantiated information justifying and documenting that decision. The FHWA's decision to approve a request is dependent on the proposal satisfying and documenting the Policy points.

FHWA approval is required when access to the Interstate System is added or revised and also when breaks in access along the crossroad, extending beyond the ramp terminal 100' in urban areas and 300' in rural areas (AASHTO A Policy on Design Standards Interstate System), are requested. This applies to all access changes on the Interstate System regardless of funding sources and oversight. Each entrance or exit point, including locked gate and temporary construction access, to the mainline Interstate is considered an access point. For example, a diamond interchange configuration has four access points.

When the Utah Department of Transportation (UDOT) considers a new or revised Interstate interchange or permanent locked gate access is warranted, they will formally seek FHWA approval through the IACR process.

Ramps providing access to rest areas, information centers, and weigh stations within the Interstate controlled access are not considered access points when applying this Policy. These facilities must be accessible to vehicles only to and from the Interstate System. Access to or from these facilities to local roads and/or adjoining property is prohibited. The only allowed exception is for access to adjacent

publicly owned conservation and recreation areas, if access to these areas is only available through the rest area, as allowed under 23 CFR 752.5(d).

Generally, any change in the design of an existing access point is considered a change to the interchange configuration, even though the number of actual points of access may not change. For example, replacing one of the direct ramps of a diamond interchange with a loop, or changing a cloverleaf interchange into a fully directional interchange would be considered revised access for the purpose of applying this Policy.

This Policy is not applicable to toll roads incorporated into the Interstate System, except for segments where Federal funds have been expended or these funds will be used for roadway improvements, or where the toll road section has been added to the Interstate System under the provisions of 23 U.S.C. 103(c)(4)(A). The term "segment" is defined as the project limits described in the Federal-aid project agreement.

Routes approved as a future part of the Interstate System under 23 U.S.C. 103(c)(4)(B) represent a special case because they are not yet a part of the Interstate System. Since the intention to add the route to the Interstate System has been formalized by agreement, any proposed new or significant changes in access beyond those covered in the agreement, regardless of funding, must be approved by FHWA.

To obtain approval from FHWA to access the Interstate system, a request for access shall be submitted to FHWA through the UDOT, in conformance with all applicable laws, guidance, and policies.

The current FHWA Policy on Access to the Interstate System (Policy), provided in Appendix A, was issued on May 22, 2017 and replaces the Policy of August 27, 2009. It includes the requirements for the justification and documentation necessary to substantiate any access request submitted to FHWA for approval. The FHWA identified several areas where the previous Policy could be streamlined to eliminate duplicative documentation with other project reviews, including the National Environmental Policy Act (NEPA) process. To remove this duplication, six of the eight Policy points were eliminated. The State Transportation Agencies (STA) should already be considering Policy points 1, 2 and 6 through their planning process to ensure the best use of limited funds. Consideration of Policy points 5, 7 and 8 are already addressed through the NEPA review of the project. The remaining two Policy points are included in the May 22, 2017 Policy and will be addressed in a technical report that focuses on the safety, operational and engineering aspects of a proposed change in access. The change will allow STAs to prepare and submit a technical report demonstrating that the change in access will not have significant negative impact on the safety and operations of the Interstate System. The May 22, 2017 Policy does not restrict the Division Office from delegating approval of acceptability determinations for safety, operations, and engineering technical reports to STAs pursuant to 23 U.S.C. 111(e). Approval

authority of the IACR remains with FHWA. The FHWA will evaluate IACRs under the updated Policy as follows:

- The FHWA will consider only two technical Policy points when making our determination of safety, operational, and engineering (SO&E) acceptability as documented in a technical report. This report may be a standalone document or an appendix to a NEPA document, but must contain the information needed to support SO&E acceptability without external references.
- The technical report may be submitted to FHWA at any point in the project development process.
- The IACR documents UDOT's activities to operate and manage the Interstate system, documents the identified needs and goals, analysis of alternatives and the request for access. Through the review and approval process, the FHWA ensures the request is documented and justified, the initial stated needs and goals are accomplished, and the request is in conformance with the intended purpose of the Interstate System.

This Policy is applicable to new or revised access points to existing Interstate facilities regardless of the funding of the original construction or regardless of the funding for the new access points. This includes routes incorporated into the Interstate System under the provisions of 23 U.S.C. 103(c)(4)(A) or other legislation.

II. Interstate Access Change Requests (IACR)

There are several different types of interstate access change requests that can impact the Interstate's operation, and they can generally be categorized as temporary, locked gate, or permanent. All three types are identified and addressed in the ISAIG. All IACRs are treated the same, regardless of funding.

UDOT must submit IACRs to the FHWA Utah Division Office for review and action under 23 U.S.C. 106 and 111(a), and 23 CFR 625.2(a). The FHWA Utah Division Office will ensure that all IACRs contain sufficient information, as required in FHWA's Policy, to allow FHWA to independently evaluate and act on the request.

IACRs must meet the two FHWA Policy requirements (Appendix A). Briefly, they are:

1. A safety and operational analysis concludes the proposed access does not have a significant adverse impact on safety and operations of the interstate. Also, a conceptual signing plan is to be provided.
2. The proposed access connects to a public road only and provides all traffic movements. Also, design standards are met or exceeded.

Applicability of FHWA Policy Requirements, in brief (see Appendix A)

- Applicable to:
 - New or revised access points to the Interstate, regardless of funding
 - Changes to routes approved as a future part of the Interstate System
 - Break in right-of-way access control
 - Interstate access design change (e.g. replacing a direct ramp with a loop, changing a cloverleaf interchange to a fully-directional interchange)
- Not Applicable to:
 - Toll roads, in general
 - Rest areas, information centers, and weigh stations
- Approvals of new or revised access requests must follow adherence to planning and NEPA requirements

A. Temporary Interstate Construction Access

Temporary construction access may be considered if construction is in an isolated location with no other means of access, there is not a recurring need, and use is for a limited or finite period of time.

Temporary construction access must be restricted when not in use, with either a locked gate or other acceptable method agreeable to FHWA and not environmental fencing or other similar material. The access must be controlled by UDOT, who may allow the Contractor access.

A temporary construction access request must be accompanied with a heavy vehicle route including ingress and egress on a plan sheet or map. Traffic control should meet MUTCD requirements for heavy vehicles. Alternative access points should be considered and discussed and identified on a map.

A temporary construction access shall be removed when it is no longer needed and returned to its previous condition at no cost to UDOT or the FHWA.

A temporary construction access should be considered during project development and included in the PS&E or RFP for contractors to bid on. If it is requested during construction, UDOT shall conduct an independent analysis of the Contractor's time and cost savings and ensure that the competitive bidding environment is preserved. UDOT's analysis should be included in the request. The Contractor is responsible for all preparation costs, including time and materials to construct the locked gate.

A checklist for preparation of a temporary IACR is in Appendix B.

B. Locked Gate Interstate Access

Locked gate access may be granted to an entity for maintenance or emergency response purposes. For example, a utility feature located inside the right-of-way fence that cannot be accessed safely from the freeway may be granted a locked gate from a frontage road to access the utility. If access to the locked gate is from the freeway, minimum required stopping sight distance per the Green Book is required for service vehicles to safely decelerate or accelerate and exit or enter the freeway.

The locked gate must meet the intended function. To prevent unauthorized use of the gate, it should be inconspicuous. Maintenance responsibilities are to be identified prior to construction of the gate. Maintenance or emergency responders will be responsible for all costs associated with the access break.

A checklist for preparation of a locked gate IACR is in Appendix C.

C. New or Revised Interstate Access

This includes service or system interchanges. Approval includes a three-step process: 1) Methods and Assumptions document, 2) Draft IACR, and 3) SO&E acceptability and final IACR FHWA approval. The three-step process was developed to help the state manage risk and provide flexibility. It is intended to identify fatal flaws and to help ensure the investment in the environmental document is not wasted.

1) Methods and Assumptions document

The Methods and Assumptions document sets the framework for the transportation safety, operational and engineering (SO&E) analysis for the IACR and includes the analysis years, limits of the study, travel demand forecasting, modeling and analysis methodologies, assumed land use and background infrastructure improvements, safety analysis methods, and operational parameters and methods. This will expedite review time and ensure the operations and safety analysis is conducted in accordance with FHWA guidelines found in the ISAIG. The Methods and Assumptions Memorandum template is provided in Appendix D.

2) Draft Interstate Access Change Request (DIACR)

Prior to approval of a NEPA document for public circulation and comment, the UDOT should submit a DIACR (see Appendix D) to FHWA for analysis and determination of SO&E acceptability. FHWA recognizes the detail provided at this time may not be sufficient to address the two points of the FHWA Policy (outlined in Appendix A). However, there should be sufficient analysis to determine if there is an impact or issue associated with one alternative versus another depending on the concept of operation and system characteristics (i.e. geometric, operation and other constraints). The DIACR should have sufficient safety and operational analysis to justify the preliminary selection of the preferred alternative.

3) Interstate Access Change Request (IACR)

The FHWA shall review and approve the IACR (see Appendix E) submitted by UDOT that addresses in detail the two points within FHWA Policy. The IACR must be accompanied by UDOT's recommendation for approval. This process requires two distinct actions:

1. The first action is the finding of **safety, operational and engineering (SO&E) acceptability**. It indicates that the request complies with the two Policy points and related requirements of the Policy. The determination also is an indicator that the access proposal is a viable alternative that may be included in the environmental analysis for a project involving change in Interstate

access. A determination of SO&E acceptability is not considered a guarantee of an approval for a proposed change in access but is considered as one step in the approval process. It is the more lengthy and time consuming of the two actions. This activity should be conducted concurrently with the NEPA process. The FHWA Division retains the authority to consult with any office in FHWA for any study. Responsibility for determining SO&E acceptability is found in Table 1 – Interstate Access Actions, Responsibility, and Review Schedule.

2. The second action is ***final approval***. This occurs after a NEPA decision has been rendered. NEPA must be followed regardless of funding type since access changes are federal actions. Final PS&E, ROW acquisition or construction must not occur until after final approval. Responsibility for final approval is found in Table 1 – Interstate Access Actions, Responsibility, and Review Schedule. Final approval is effective unless or until the following conditions occur:
 - i. If a significant change in conditions occurs between the NEPA decision and project construction (e.g., land use, traffic volumes, roadway configuration for design, environmental commitments), the IACR shall be reevaluated for SO&E acceptability.
 - ii. If a project has not progressed to construction within 8 years of receiving approval of the IACR, the IACR shall be reevaluated.

Table 1 – Interstate Access Actions, Responsibility, and Review Schedule

Action	SO&E Acceptability Determination Responsibility	Final Approval Responsibility	Review Schedule
1. Modification to existing freeway-to-crossroad (service) interchange (e.g., change from diamond to single point urban, doubling lanes for on-ramp with double lane entry to Interstate mainline, adding a loop ramp to existing diamond interchange, etc.)	FHWA Division ¹	FHWA Division ²	30-day review upon receipt of request
2. Addition of entrance or exit ramps which complete basic movements at existing partial interchanges			
3. A new freeway to crossroad (service) interchange (this is a full interchange that provides for all directions of travel).			
4. Locked gate and temporary construction access	FHWA Division	FHWA Division	15-day review upon receipt of request
5. Abandonment of Ramps or Interchanges			
6. New partial interchanges or new ramps to/from continuous frontage road (slip ramps) that create a partial interchange. (A partial interchange does not provide for all directions of travel. For this reason, partial interchanges are strongly discouraged.)	FHWA Headquarters ³	FHWA Division	60-day review upon receipt of request
7. Modification to freeway-to-freeway (system) interchanges, e.g., change from cloverleaf to directional			
8. New freeway-to-freeway (system) interchanges.			

¹ Responsibility may be delegated to the state per a PA

² Under a PA, FHWA's lack of objections to the State DOT's SO&E determination within an agreed time period in the PA constitutes FHWA's concurrence and may be deemed approved after NEPA is complete.

³Any authority to approve changes in the degree of access control not listed in this table is delegated to the Executive Director and may not be re-delegated.

The interstate access actions, responsibility and review schedules in Table 1 follow the guidance in Notice N1100.4 (see Appendix F), which revised parts of Order M1100.1A.

The FHWA Division is responsible for determination of SO&E acceptability and final approval for new or revised service interchanges, completing partial interchanges, locked gate access, temporary access and abandonment of ramps or interchanges.

FHWA Headquarters is responsible for determination of SO&E acceptability for new partial or slip interchanges and new or revised system interchanges. Note that the FHWA Division is responsible for the final approval of these actions after receiving the finding of SO&E acceptability from FHWA Headquarters.

Programmatic Agreement

The FHWA may enter into a Programmatic Agreement (PA) with the UDOT to delegate approval authority for SO&E acceptability for the following types of access requests:

1. New and modified freeway-to-crossroad (service) interchanges;
2. Completion of basic movements at existing partial interchanges.

The Programmatic Agreement template is available from FHWA.

23 U.S.C. 111(a) requires that any new or revised access point to the interstate system must be approved by the Secretary. Therefore, FHWA remains legally responsible for the approval of all proposed changes to access. Under the PA, State DOTs will review access requests and make a determination of SO&E acceptability in accordance with the Policy. FHWA's lack of objections to the State DOT's determination within an agreed time period specified in the PA would constitute FHWA's concurrence required under 23 U.S.C. 111(a). The access request may be deemed to have approval from FHWA once NEPA compliance for the project is completed.

III. Operational and Safety Analyses

Changes to the ramps or street network may impact the Interstate system without changing access onto and off the Interstate. A NEPA document and an IACR are not required under these circumstances because access to the interstate was not changed, but an operational and safety analysis (OSA) may be required by the Division. This analysis is based on Policy Point 1. The eleven actions listed below, which are adapted from the ISAIG, do not require an IACR but do require an OSA.

1. Shift of ramp terminal along the Interstate mainline closer to the cross-street.
2. Addition of lanes to an on-ramp in a TMA.
3. Addition of left-turn and right-turn storage lanes and through travel lanes at existing ramp termini in a TMA if impact to the Interstate is uncertain.
4. Relocation or shifting of the ramp end connection to the cross-street in a TMA when distance to an adjacent, nearby cross-street is reduced.

5. Addition of a single auxiliary lane between two adjacent interchange ramps.
6. Decrease in the length of acceleration and deceleration lanes in a TMA.
7. Improvement of traffic signals if impact to Interstate is uncertain.
8. Implementation of ramp metering
9. Placement of new signing and striping that results in added or decreased capacity on an
Interstate on- and off-ramp in a TMA if the impact to the Interstate is uncertain.
10. Changes in access between managed lanes and general purpose lanes.
11. Changes in access on cross streets adjacent to the ramp terminals.

FHWA reserves the right to require an OSA for actions not listed above if the AE determines the mainline operations and safety may be impacted or impacts are unknown. An OSA may not be required for the actions above if the AE determines the mainline operations and safety are unlikely to be negatively impacted by the action. For example, a rural ramp terminal with free flow conditions that is shifted closer to the cross street likely would not need an OSA.

The AE should be notified by UDOT early in project development when actions listed above are incorporated into the project. Consult with the AE to determine the appropriate level of detail for the OSA. Existing and future conditions should be evaluated utilizing applicable modeling tools and data for the operational analysis and substantive safety data for the safety analysis.

IV. References

23 USC 111(a) *“All agreements between the Secretary and the State transportation department for the construction of projects on the Interstate System shall contain a clause providing that the State will not add any points of access to, or exit from, the project in addition to those approved by the Secretary in the plans for such project, without the prior approval of the Secretary.”*

23 CFR 1.23, Rights-of-way

23 CFR 625, Design Standards for Highways

23 CFR 710, Subpart D, Real Property Management

23 CFR 752 Non-regulatory Supplement (Safety Rest Areas) October 5, 1992 Federal Register: August 27, 2009 (Volume 74, Number 165, Page 43743-43746)

FHWA Policy on Access to the Interstate System, May 22, 2017

FHWA Policy Memorandum – Programmatic Agreement for Processing Interstate Access Requests – Revised, April 26, 2016

UDOT and FHWA Stewardship and Oversight Agreement, April 14, 2015

FHWA Notice N1100.4 – Revised Chapters to FHWA Delegations of Authority Order M1100.1A – Interstate Access, November 25, 2014

FHWA Utah Division Standard Operating Procedure – New or Revised Interstate Access Points, issued December 27, 2010, updated June 20, 2013

FHWA Notice N1100.1A – Revised Delegations of Authority to Order M1100.1A, April 10, 2012

AASHTO, A Policy on Geometric Design of Highways and Streets, 6th Edition, 2011

UDOT Roadway Design Manual of Instruction, updated February 3, 2011

FHWA Interstate System Access Informational Guide, August 31, 2010

FHWA Policy Memorandum – Coordination of Vertical Clearance Design Exceptions on the Interstate System, April 15, 2009

AASHTO, A Policy on Design Standards – Interstate System, 5th Edition, 2005

FHWA Policy Memorandum - Delegation of Authority, Requests for New or Revised Access Points on Completed Interstate Highways, August 19, 1996

FHWA Order M1100.1A – FHWA Delegations and Organization Manual, July 14, 1995

Appendix A – FHWA’s Two Policy Points

It is in the national interest to preserve and enhance the Interstate System to meet the needs of the 21st Century by assuring that it provides the highest level of service in terms of safety and mobility. Full control of access along the Interstate mainline and ramps, along with control of access on the crossroad at interchanges, is critical to providing such service. Therefore, the Federal Highway Administration’s (FHWA) decision to approve new or revised access points to the Interstate System under Title 23, United States Code (U.S.C.), Section 111, must be supported by substantiated information justifying and documenting that decision. The FHWA’s decision to approve a request is dependent on the proposal satisfying and documenting the following requirements.

The considerations and requirements below are in italics, and a discussion of each requirement’s intent is provided in standard font.

Policy Point 1

An operational and safety analysis has concluded that the proposed change in access does not have a significant adverse impact on the safety and operation of the Interstate facility (which includes mainline lanes, existing, new, or modified ramps, and ramp intersections with crossroad) or on the local street network based on both the current and the planned future traffic projections. The analysis should, particularly in urbanized areas, include at least the first adjacent existing or proposed interchange on either side of the proposed change in access (Title 23, Code of Federal Regulations (CFR), paragraphs 625.2(a), 655.603(d) and 771.111(f)). The crossroads and the local street network, to at least the first major intersection on either side of the proposed change in access, should be included in this analysis to the extent necessary to fully evaluate the safety and operational impacts that the proposed change in access and other transportation improvements may have on the local street network (23 CFR 625.2(a) and 655.603(d)). Requests for a proposed change in access should include a description and assessment of the impacts and ability of the proposed changes to safely and efficiently collect, distribute, and accommodate traffic on the Interstate facility, ramps, intersection of ramps with crossroad, and local street network (23 CFR 625.2(a) and 655.603(d)). Each request should also include a conceptual plan of the type and location of the signs proposed to support each design alternative (23 U.S.C. 109(d) and 23 CFR 655.603(d)).

The operational and safety analysis performed needs to include all elements of the Interstate System, including collector-distributor roads, and provide a comparison of the no-build and build conditions that are anticipated to occur through the design year of the project. The analysis may be extended beyond the minimum requirements outlined above to establish the potential extent and scope of the impacts. Extending the limits of the analysis in urbanized areas where there are closely spaced interchanges may be required. The limit of the analysis area might be different than that of the construction area. The operational analysis limit should be based on logical traffic break within the system. The analysis should demonstrate the safety, operational and engineering acceptability of the proposed change in access. When considering the impacts of various alternatives, priority needs to be given to the performance of the Interstate System within the context of the local planning, environmental, design, safety, and

operational conditions. Furthermore, signage is critical to the operations of an interchange and any modification or addition to an access of the Interstate will require appropriate signage to that end, especially for more complex interchange configurations.

The analysis of the operational effects of proposed changes detailed in the IACR should be performed to support the following:

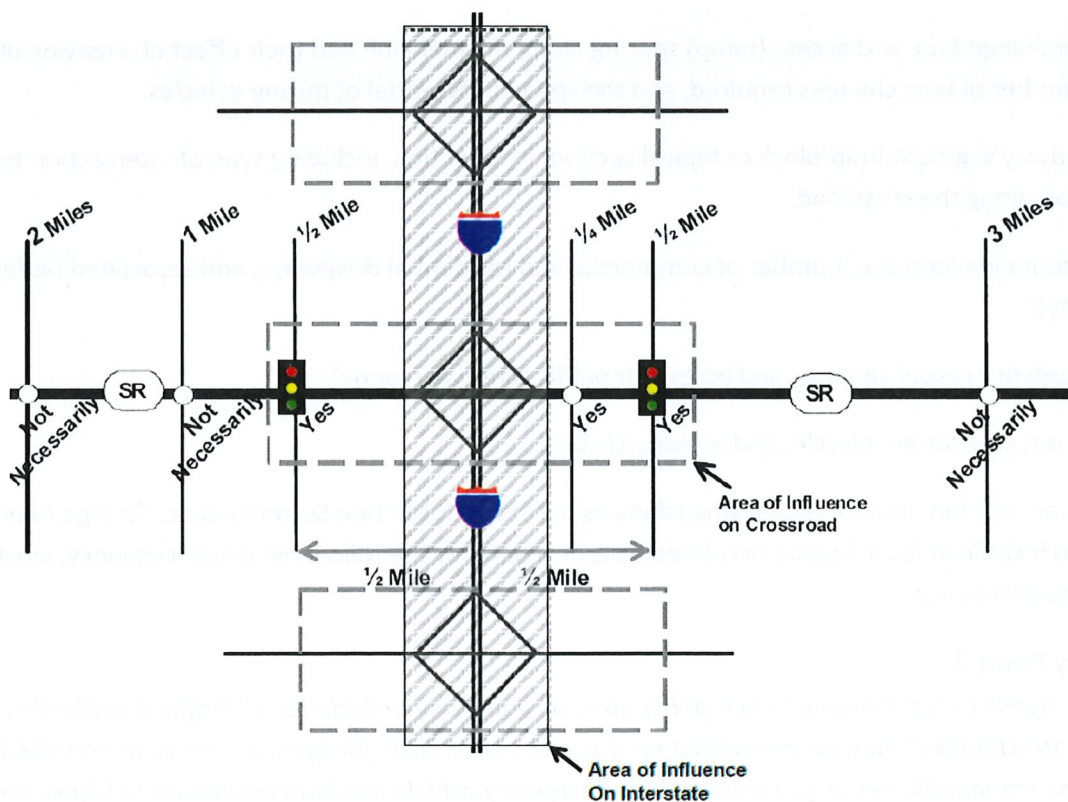
- **Improve the Decision-Making Process** – Operational analyses support the planning / engineering decision-making for complex transportation problems, and promote consistency in comparing alternatives.
- **Assess Scenarios to Identify Robust Concepts** – Operational analysis of future-year conditions is important when long-term improvements are being considered, operational concepts are being discussed, and when traffic and land use patterns are dynamic.
- **Evaluating and Prioritizing Alternatives** – Operational analysis assists in understanding and comparing the impacts of different alternatives. This typically involves the comparison between the no-build conditions with various build alternatives. The impacts are reported as performance measures and should be defined as the difference between the No-Build and Build Alternatives.
- **Present Strategies to General Public and Stakeholders** – Some traffic analysis tools have graphical and animation capabilities which assist in describing the problem, purpose, need, and proposed alternatives.

A traffic and operational analysis must be performed that includes an analysis of adjacent segments of the freeway as well as nearby existing and proposed interchanges. The results must demonstrate operational acceptability for the opening year and design year as it relates to following:

- Freeway mainline
- Freeway weaving
- Freeway diverge
- Ramp merge
- Ramp/Crossroad intersection
- Crossroads and other local streets ability to effectively collect and distribute traffic from the new or revised interchange.
- Special use lanes (HOV, HOT Lanes, and associated bypass lanes) where proposed or present

Analysis results should be presented in the request at critical points (e.g., weave, merge, diverge, accident sites, HOV lanes) along the affected section of Interstate (mainline and ramps) and on the surface street system for both the AM and PM peak period. Show new congestion points which would be introduced by the proposal, and congestion points which should be improved or eliminated, any locations at which congestion is compounded, and any surface street conditions which would affect traffic entering or exiting the Interstate. This should be presented for existing, year of implementation, and design year.

The limits of the analysis on the Interstate shall at a minimum be through the adjacent interchanges on either side of the proposed access. In urban areas, it is often necessary to consider the two adjacent interchanges in both directions. Distances to and projected impacts on adjacent interchanges should be provided in the request. The limits of the analyses on the existing or improved surface street system will be the extent of the system necessary to show that the surface street system can safely and adequately handle any new traffic loads resulting from the new/revised access point. A diagram below demonstrates how an area of influence could be developed.



Source: Adapted from Florida Department of Transportation, *Interchange Handbook*.

Figure 2. Area of Influence

The analysis of the safety considerations associated with an Interchange Access Change Request should consider anticipated safety performance confirmed with substantive safety data when available for any proposed change in access. While this terminology is relatively new, the concepts are not, and are reflected in good practices by many states.

Substantive safety analysis involves the evaluation of the actual performance of a highway or facility as measured by its crash experience (number of crashes per mile per year, with consequences of those crashes as specified by injuries, fatalities, or property damage).

Establishing the area of influence for safety performance associated with Interstate System Access Change Requests is strongly related to the following:

- Traffic volume (average daily and peak periods).
- Mix of traffic volumes (percent trucks).
- Location (rural, urban, suburban).
- Terrain (mountainous, rolling, level).
- Interchange type and access (ramp) spacing along the mainline and their effect on weaving distances, the number of lane changes required, and the speed differential of mixing vehicles.
- Roadway segment (mid-block or typical section; intersection, including type of intersection traffic control) along the crossroad.
- Surrounding land use (number of commercial and residential driveways, and associated pedestrian activity).
- Emergency response times and access for public safety personnel.
- Transit, pedestrian, bicycle, and motorcycle use.

Crash or collision data for diagnosing safety as part of an Interstate System Access Change Request should include at least 3 years of related historical data for the following: crash frequency, crash type and crash severity.

Policy Point 2

The proposed access connects to a public road only and will provide for all traffic movements. Less than "full interchanges" may be considered on a case-by-case basis for applications requiring special access, such as managed lanes (e.g., transit or high occupancy vehicle and high occupancy toll lanes) or park and ride lots. The proposed access will be designed to meet or exceed current standards (23 CFR 625.2(a), 625.4(a)(2), and 655.603(d)). In rare instances where all basic movements are not provided by the proposed design, the report should include a full-interchange option with a comparison of the operational

and safety analyses to the partial-interchange option. The report should also include the mitigation proposed to compensate for the missing movements, including wayfinding signage, impacts on local intersections, mitigation of driver expectation leading to wrong-way movements on ramps, etc. The report should describe whether future provision of a full interchange is precluded by the proposed design.

All interchanges need to provide for each of the eight basic movements (or four basic movements in the case of a three-legged interchange), except in the most extreme circumstances. Partial interchanges usually have undesirable operational characteristics and violate driver expectancy. If circumstances exist where a partial interchange is considered appropriate as an interim improvement, then commitments need to be included in the request to accommodate the ultimate design. These commitments may include purchasing the right-of-way required during the interim improvements.

Access to special use lanes, transit stations, or park and ride lots that are part of the Interstate System are special cases, and the movements requiring access should be determined on a case-by-case basis.

Application

This Policy is applicable to new or revised access points to existing Interstate facilities regardless of the funding of the original construction or regardless of the funding for the new access points. This includes routes incorporated into the Interstate System under the provisions of 23 U.S.C. 103(c)(4)(A) or other legislation.

Routes approved as a future part of the Interstate System under 23 U.S.C. 103(c)(4)(B) represent a special case because they are not yet a part of the Interstate System. Since the intention to add the route to the Interstate System has been formalized by agreement, any proposed new or significant changes in access beyond those covered in the agreement, regardless of funding, must be approved by FHWA.

This Policy is not applicable to toll roads incorporated into the Interstate System, except for segments where Federal funds have been expended or these funds will be used for roadway improvements, or where the toll road section has been added to the Interstate System under the provisions of 23 U.S.C. 103(c)(4)(A). The term “segment” is defined as the project limits described in the Federal-aid project agreement.

Each break in the control of access to the Interstate System right-of-way is considered to be an access point. For the purpose of applying this Policy, each entrance or exit point, including “locked gate” access, is considered to be an access point. For example, a diamond interchange configuration has four access points.

Ramps providing access to rest areas, information centers, and weigh stations within the Interstate controlled access are not considered access points for the purpose of applying this Policy. These facilities must be accessible to vehicles only to and from the Interstate System. Access to or from these facilities and local roads and adjoining property is prohibited. The only allowed exception is for access to adjacent

publicly owned conservation and recreation areas, if access to these areas is only available through the rest area, as allowed under 23 CFR 752.5(d).

Generally, any change in the design of an existing access point is considered a change to the interchange configuration, even though the number of actual points of access may not change. For example, replacing one of the direct ramps of a diamond interchange with a loop, or changing a cloverleaf interchange into a fully directional interchange would be considered revised access for the purpose of applying this Policy.

All requests for new or revised access points on completed Interstate highways must closely adhere to the planning and environmental review processes as required in 23 CFR parts 450 and 771. The FHWA approval constitutes a Federal action and, as such, requires that the transportation planning, conformity, congestion management process, and the National Environmental Policy Act procedures be followed and their requirements satisfied. This means the final FHWA approval of requests for new or revised access cannot precede the completion of these processes or necessary actions.¹

To offer maximum flexibility, however, any proposed change in access can be submitted by a State DOT to the FHWA Division Office for a determination of safety, operational, and engineering acceptability.² This flexibility allows agencies the option of obtaining this acceptability determination prior to making the required modifications to the Transportation Plan, performing any required conformity analysis, and completing the environmental review and approval process. In this manner, State DOTs can determine if a proposal is acceptable for inclusion as an alternative in the environmental process. This Policy in no way alters the planning, conformity, or environmental review and approval procedures as contained in 23 CFR parts 450 and 771, and 40 CFR parts 51 and 93.

An affirmative determination by FHWA of safety, operational, and engineering acceptability for proposals for new or revised access points to the Interstate System should be reevaluated whenever a significant change in conditions occurs (e.g., land use, traffic volumes, roadway configuration or design, environmental commitments). Proposals may be reevaluated if the project has not progressed to construction within 3 years of receiving an affirmative determination of engineering and operational acceptability (23 CFR 625.2(a); see also 23 CFR 771.129). If the project is not constructed within this time period, then FHWA may evaluate whether an updated justification report based on current and projected future conditions is needed to receive either an affirmative determination of safety, operational, and engineering acceptability, or final approval if all other requirements have been satisfied (23 U.S.C. 111, 23 CFR 625.2(a), and 23 CFR 771.129).

Implementation

State DOTs must submit requests for proposed changes in access to their FHWA Division Office for review and action under 23 U.S.C. 106 and 111(a), and 23 CFR 625.2(a). The FHWA Division Office will ensure that all requests for changes in access contain sufficient information, as required in this Policy, to allow FHWA to independently evaluate and act on the request.

Effective Date

This Policy replaces the August 27, 2009 Policy "Access to the Interstate System", published at 74 Federal Register 43743. The changes in this Policy are made to ensure this Policy focuses on safety, operational, and engineering issues. The considerations of social, economic, and environmental impacts discussed in the 2009 Policy are removed from this Policy. However, the removal from this Policy does not eliminate the need to consider those matters. Those issues will be addressed under the National Environmental Policy Act and other statutes and regulations applicable to the approval process.

This Policy is effective as of May 22, 2017.

¹ State Departments of Transportation (State DOTs) may assume FHWA environmental review responsibilities under 23 U.S.C. 326 (Categorical Exclusion assignment program) or 23 U.S.C. 327 (Surface Transportation Project Delivery Program). FHWA retains final approval authority of the Interstate System Access change request once the project receives safety, operational, and engineering acceptability and environmental review.

² FHWA may delegate approval authority for some Interstate access justification reports to State DOTs pursuant to 23 U.S.C. 111(e). See <https://www.fhwa.dot.gov/design/interstate/160426.cfm>. FHWA retains final approval authority of the Interstate System Access change request once the project receives safety, operational, and engineering acceptability and environmental review.

Appendix B – Temporary IACR Checklist

Include a background, project location, purpose, need and methodology.

The following must be provided for a temporary interstate construction access:

- ☐ Vicinity maps and other visualization techniques are required
- ☐ Construction is in an area with no other means of access, there is not a recurring need, and use is for a limited or finite period of time.
- ☐ Temporary construction access is included in PS&E or RFP. If the request is not associated with a project, include the request in the undertaking.
- ☐ Consider other alternatives
- ☐ If a temporary access is requested during construction,
 - ☐ UDOT shall conduct an independent analysis of the Contractor's time and cost savings and ensure that the competitive bidding environment is preserved.
 - ☐ UDOT's analysis should be included in the request.
 - ☐ The Contractor is responsible for all preparation costs, including time and materials to construct the locked gate.
- ☐ Temporary construction access will be restricted when not in use, with either a locked gate or other acceptable method agreeable to FHWA
- ☐ Locked gate material is not environmental fencing or other similar material.
- ☐ The access will be controlled by UDOT, who may allow the Contractor access.
- ☐ A heavy vehicle route including ingress and egress on a plan sheet or map will be provided.
- ☐ Traffic control for heavy vehicle route per MUTCD requirements will be provided.
- ☐ Temporary construction access will be removed when no longer needed and returned to its previous condition at no cost to UDOT or the FHWA.
- ☐ Completed NEPA document

Appendix C – Locked Gate IACR Checklist

Include a background, project location, purpose, need and methodology.

The following must be provided for an interstate locked gate access:

- ☐ Request is for maintenance or emergency purposes.
- ☐ Provide minimum required stopping sight distance.
- ☐ Locked gate meets intended function.
- ☐ The locked gate is inconspicuous to prevent unauthorized use of the gate.
- ☐ Identify maintenance responsibilities
- ☐ Maintenance or emergency responders will be responsible for all costs associated with the access break.

Appendix D – Methods and Assumptions Memorandum

Interstate Access Change Request Methods and Assumptions Memorandum

The intent of this technical memorandum is to gain endorsement of the methods and assumptions approach to supplement the Interstate Access Change Request. This should be consistent with transportation methods and assumptions for analysis being performed for the project that will be applied within the Interstate Access Change Request process and subsequent documentation. Provided below is an example outline of what should be considered and documented in the assumption document:

Introduction and Project Description

This section identifies all parties involved, the type of interchange proposal, and location. It should also describe what the project entails (figures should demonstrate the study area, construction limits, and traffic area of influence).

Problem, Purpose and Needs, Goals and Objectives

Before embarking on any major analytical effort, it is recommended that the problem, purpose and need be defined. **For example purposes only**, a problem definition may include performance characteristics. For example:

The existing corridor realizes an average speed of 37 mph during the time period of 5:15 to 5:30 p.m. between two known points, and is accompanied by an average throughput of 1,628 vehicles per hour per lane; this same segment is able to support an average throughput of 2,011 vehicles per hour per lane between 4 to 4:15 p.m. with an average speed of 53 mph.

By defining the problem, along with these types of operational performance measures, the analyst begins to focus on a top priority issue. This would not be possible with a broad all-encompassing statement that ***the existing facility is congested or access is currently not supported.***

The study goal and objective can then be established to further define the focus of the analysis and the desired future conditions for the facility. **For example purposes only**, a goal and objective statement may emphasize the following:

It is a goal and objective of this study to identify an alternative which:

- *Provides for minimum average freeway speeds of 47 mph throughout the peak period between Points A and Point B.*
- *Supports a freeway flow rate of 2,150 passenger cars per hour per lane (pcphpl) throughout the peak period.*

- *Provides for ramp operations which do not generate queues or spillback which impact operations on the freeway or major crossroad.*
- *All parcels are within 2.5 miles of a major arterial, which has the following operational characteristics:*
 - *Arterial operations do not result in phase failure or spillback along the approach defined as the major roadway.*
 - *Operations favor traffic flowing along the major roadway at an average speed of 35 mph.*
 - *Supports continuous arterial flow along the major roadway for a minimum of five signals before a vehicle is required to stop.*
 - *Minimizes delay at all signalized approaches.*

Overall, the study objectives should define why the analysis is needed, what questions the analysis should answer, and what type of information is required to support a more informed decision.

Scope

This section clearly describes the scope of the project and lays out the operational and access issues. It is recommended that the problem, purpose and need be defined before embarking on any major analytical effort. The following questions should be answered, as applicable, in describing the project scope:

- What are the project objectives?
- What are the available resources (all partners)?
- What are the project constraints?
- What are the limits of the project (operational / geographic limits)?
- What is the proximity to adjacent interchanges and intersections that have operational / environmental impact to the project?
- How does the study area influence operations at adjacent locations within the transportation network?
- What alternatives / modes are being considered to address the problem?
- What physical elements within the network can be analyzed to support the purpose, goal and objective of the scope?

- Will the operational characteristics of the surrounding area change in the future, and if so, will an understanding of how this relates to the study area warrant analysis?
- What level of quality assurance is planned?
- How will the model selection be evaluated?
- Is there sufficient time allocated to develop, calibrate, and conduct the analysis?
- What degree of precision do the decision makers require?
- Will varying travel demand patterns and land use scenarios be considered to assess how robust and flexible the alternatives are?

Prior to beginning the analysis process, it is recommended that a coordination meeting be held with all interested parties to explicitly refine and verify the problem, purpose, and need; the goals and objectives of the study; and the limits of the operational analysis. The scope of the operational analysis likely will influence the stakeholders to be included in the initial and subsequent meeting.

Project Schedule

This section provides an anticipated proposal development and review schedule, and a schedule of production activities consistent with the proposed funding and opening year.

Project Location

This section provides a description of the location, and should include both graphic and written description of the location.

Analysis Years

This section identifies the base year, opening year, interim year/s (if needed), and design year. The base year is the current year, to quantify the current problem and define the purpose and need. This requires performance data associated with current conditions. This is important regardless of analysis methodology and tools applied. Opening year is the year that the facility is expected to be open for traffic. The design year assessment reflects a 20-year horizon from the anticipated opening date of the project. While a design year may warrant a longer horizon, a minimum design year based on 20 years is required for the plans, specifications, and engineering for a project as is required by 23 U.S.C. Section 109(b), which states:

(b) The geometric and construction standards to be adopted for the Interstate System should be those approved by the Secretary in cooperation with the State transportation departments. Such

standards, as applied to each actual construction project, should be adequate to enable such project to accommodate the types and volumes of traffic anticipated for such project for the twenty-year period commencing on the date of approval by the Secretary, under section 106 of this title, of the plans, specifications, and estimates for actual construction of such project.

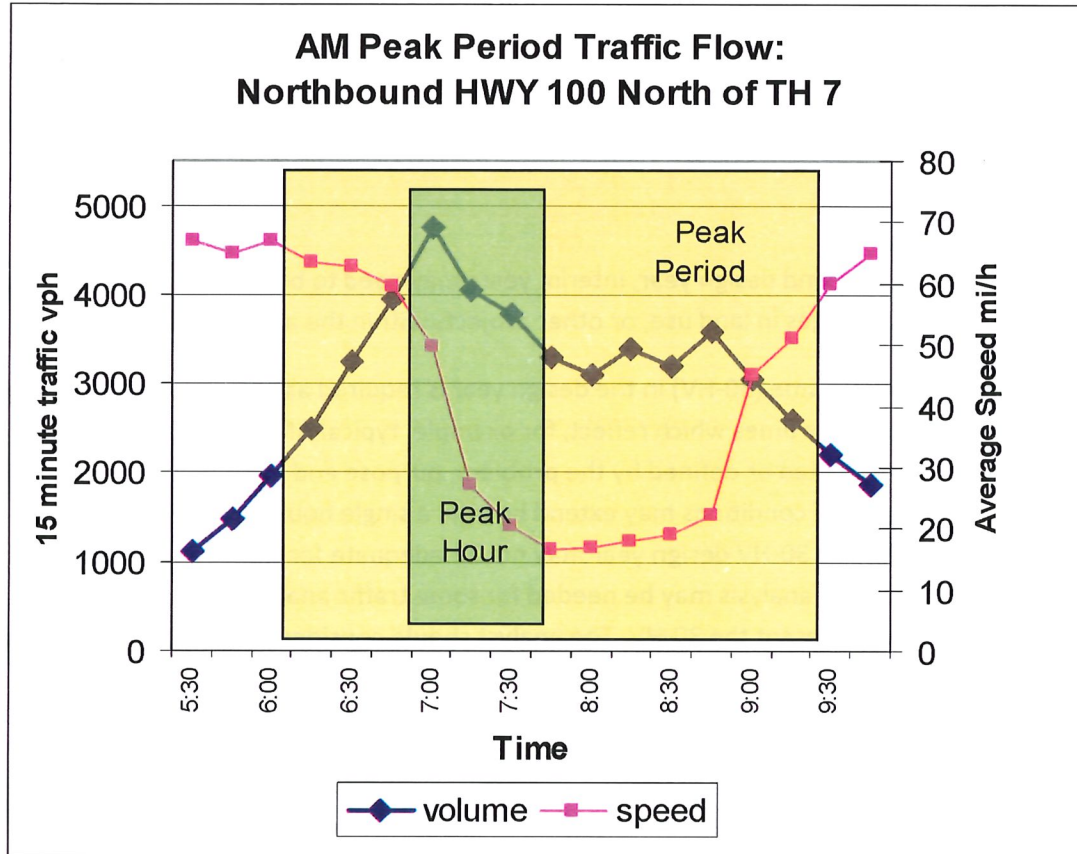
Analysis Period

In addition to the existing and design year, interim years may need to be considered, resulting from phased construction, changes in land use, or other projects within the area of influence.

The 30th highest hourly volume (30-HV) in the design year is required as a minimum. Additional periods may be required for times which reflect, for example, typical AM /PM peak conditions or peak conditions as anticipated or defined by the problem, purpose and need of the study. Recognizing that congested conditions may extend beyond a single hour in some cases, the minimum requirement of a 30-HV design year may not be adequate for the operational analysis. In these cases, a multi-period analysis may be needed for some traffic analysis tools that include demand volumes that represent the 30-HV. The analyst should consider this in assessing the traffic forecast demands and in preparing the required data.

For locations and conditions in which a facility is at or near capacity today or in the future, a multi-hour time period would be warranted. Understanding the operational conditions throughout the peak period, in particular, would provide insights to the length of time in which a corridor is at or near saturation; promote an understanding of the geographic and temporal expanse of congestion due to one or more geometric features within an alternative; and support an ability to quantify multiple operational performance measures.

As depicted in the figure below, while the peak period and peak hour relate to each other, the average speed and traffic flow vary within each, and have different maximums and minimums. Understanding how an alternative supports and recovers from a given traffic demand profile may be as important as understanding how it operates during the peak 15 minutes.



Source: Traffic Analysis Toolbox Volume IV: Guidelines for Applying CORSIM Microsimulation Modeling Software, January 2007, Publication Number FHWA-HOP-07-079.

In summary, the study should define the following:

- Existing year
- Opening year
- Interim year (may or may not apply to the project)
- Design year

Analysis Alternative

This section should include the following minimum alternatives:

- No-Build
- Transportation System Management (TSM) – Ramp metering, mass transit, and high occupancy vehicle (HOV) facilities.
- Alternative Transportation Modes – This includes considering any modal shift of traffic to public transit or special use lanes.
- Build Alternative
- Build Alternative with TSM and Alternative Transportation Modes

Both graphic and written descriptions of the above alternatives should be provided.

Data Collection

Based on the different alternatives that have been proposed for the project, identify the types of data for analysis. These data may include:

- Land use – existing and proposed
- Traffic data:
 - Geometry (Interstate, ramps, intersections, arterials)
 - Control (signal timing, signs, ramp meters, time of day parking restriction, etc)
- Traffic factors to be collected (PHF, K30, D30, Truck Traffic (T), Recreational Vehicles (RVs))
- Pedestrian, bicycle and transit data as warranted to analyze multi-modal operation
- Access problems, purpose, need, goals, and objectives which may affect the operations and safety of the access.
- Calibration data (capacities, travel times, speed, queues, etc.)

Travel Demand Forecasting

This section describes how the future traffic will be forecasted. This section needs to describe and select the approved models for the area of interest and a comprehensive travel demand forecasting methodology (model to be used, validation and calibration efforts, historical trends analysis, growth rate development, development of future year project traffic, etc.). This activity should be coordinated with and agreed to by the MPO where applicable and UDOT to promote consistency with multiple studies in the area.

Operational Analysis Procedures

This section describes how the operational analysis will be done for the project. Details of operational analysis methodology need to include:

- Mainline capacity analysis
- Ramp analysis
- Weave analysis
- Arterial analysis

This section identifies the proper tools for the analysis process based on the objectives and goals of the project. The tools could be deterministic (HCS, Synchro, etc), Mesoscopic Simulation (Dynasmart, Paramic, etc), and Microscopic Simulation (CORSIM, Paramic, Vissim, etc). An emphasis on comparing alternatives is encouraged to normalize any inconsistencies between the various analysis tools considered.

Safety Analysis

The analysis of the safety considerations associated with an Interchange Access Change Request should consider anticipated safety performance supported by substantive safety data when available for any proposed change in access. While this terminology is relatively new, the concepts are not, and are reflected in good practices by many states.

Substantive safety analysis involves the evaluation of the actual performance of a highway or facility as measured by its crash experience (number of crashes per mile per year, with consequences of those crashes as specified by injuries, fatalities, or property damage).

The analysis of safety in the context of an Interchange Access Change Request should address the following elements:

- Establish safety area of influence
- Collect traffic, geometric, and safety data (including design-year volumes)
- Analyze safety data
- Assess existing and future safety conditions under build and no-build scenarios
- Consider possible corrective actions and countermeasures
- Document the current and anticipated safety performance

- Document signing plans for the preferred alternative

Common Methods for Assessing Safety

Method	Advantages	Disadvantages
Collision Frequency	<ul style="list-style-type: none"> • Simple to use. • Easy for the public to understand. 	<ul style="list-style-type: none"> • Biased toward high-volume sites. • Does not consider exposure. • Severity not considered. • Regression to the mean not addressed.
Collision Rates	<ul style="list-style-type: none"> • Simple to use. • Considers exposure. 	<ul style="list-style-type: none"> • Biased toward low-volume sites. • Requires volume data. • Assumes collisions and volume have relationship. • Severity not considered. • Regression to the mean not addressed.
Critical Collision Rate	<ul style="list-style-type: none"> • Relatively simple. • Considers exposure. • Applies a recognized statistical method. 	<ul style="list-style-type: none"> • Requires volume data. • Assumes collisions and volume have a linear relationship. • Severity not considered. • Regression to the mean not considered.
Collision Severity Method	<ul style="list-style-type: none"> • Relatively simple. • Considers exposure. 	<ul style="list-style-type: none"> • Biased toward high-speed sites. • Assumes collisions and volume have a linear relationship. • Regression to the mean not considered.
Risk Analysis Methods	<ul style="list-style-type: none"> • Accurate. • Considers exposure and severity. • Considers varying safety levels but locally, among a group of similar locations and across an entire jurisdiction. 	<ul style="list-style-type: none"> • Requires volume data. • Assumes collisions and volume have a linear relationship. • Regression to the mean not considered.
Safety Performance Functions	<ul style="list-style-type: none"> • More accurate. • Considers exposure. • Acknowledges that collisions and volume have a non-linear relationship. 	<ul style="list-style-type: none"> • Requires volume data. • Regression to the mean not considered. • Labor intensive. • Difficult for public to conceptualize.
Empirical Bayes Method	<ul style="list-style-type: none"> • Most accurate. • Considers exposure. • Acknowledges that collisions and volume have a non-linear relationship. • Addresses regression to the mean. 	<ul style="list-style-type: none"> • Requires volume data. • Difficult for public to conceptualize.

Following the completion of the analysis of the safety for existing and future conditions, corrective actions and potential countermeasures are needed to address these concerns. Since local conditions vary significantly, no comprehensive research has been performed to quantify the potential benefits for many of these measures. Qualitatively, several possible treatments exist to correct nominal and substantive safety concerns along freeways and intersecting local roadways. Table 2 and Table 3 provide a summary of the common crash types, possible causes, and potential corrective actions that could be considered along freeways and within interchange areas and along non-freeways, respectively.

Common Collision Types, Possible Causes and Countermeasures along Freeways and Within Interchange Areas

Collision Type	Possible Cause	Possible Countermeasures
Rear-End	<ul style="list-style-type: none"> • Queue spillback along interchange ramps. • Queues resulting from other collisions. • New points of Interstate Access 	<ul style="list-style-type: none"> • Improve crossroad intersection operations to reduce queue spillback. • Ensure decision sight distance is provided to back of queue if the spillback does not occur in freeway lanes and is hidden on the ramp. • Provide additional storage lanes along ramp. • Provide adequate storage. • Add lanes on ramp to distribute traffic.
	<ul style="list-style-type: none"> • Left exits or entrances resulting in driver indecision. 	<ul style="list-style-type: none"> • Remove left exists or entrances. • Improve signing and/or pavement markings in advance of left exit or entrance.
	<ul style="list-style-type: none"> • Mainline lane drops. • Lack of lane continuity. • Lack of route continuity. • Lack of lane balance. • Inadequate application of auxiliary lanes. 	<ul style="list-style-type: none"> • Eliminate reduction of basic number of lanes. • Improve freeway operational level of service. • Correct lane balance issues. • Correct lane continuity issues.
	<ul style="list-style-type: none"> • Slowing of vehicles resulting in a speed differential. 	<ul style="list-style-type: none"> • Lengthen acceleration/deceleration lanes. • Flatten profiles grades for deceleration lanes. • Correct loop ramp radius. • Improve or eliminate weaving sections. • Provide decision sight distance.
Head-On	<ul style="list-style-type: none"> • Inadequate median protection. • Vehicle entered freeway in wrong direction. 	<ul style="list-style-type: none"> • Implement median barriers. • Improve signing and channelization where wrong-way movements may occur.
Sideswipe, Same Direction	<ul style="list-style-type: none"> • Excessive driver workload in merge/diverge area. • Inadequate acceleration length. • Too many lane changes. • Weaving distances too short. 	<ul style="list-style-type: none"> • Reduce/simplify signing. • Lengthen acceleration lanes. • Correct lane balance issues. • Correct lane continuity issues. • Reduce number of required lane changes.

	<ul style="list-style-type: none"> • Spacing between ramps too short. • Inadequate decision sight distance. • Driver confusion/indecision. 	<ul style="list-style-type: none"> • Improve or eliminate weaving sections. • Provide decision sight distance. • Provide consistency in ramp locations.
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Common Collision Types, Possible Causes, and Countermeasures along Non-Freeways

Collision Type	Possible Cause	Possible Countermeasures
Rear-End	<ul style="list-style-type: none"> • Sudden and unexpected slowing or stopping when motorists make left turns in and out of driveways along corridor 	<ul style="list-style-type: none"> • Median Improvements
	<ul style="list-style-type: none"> • Sudden and unexpected slowing or stopping when motorists make right turns in and out of driveways along corridor 	<ul style="list-style-type: none"> • Access management
	<ul style="list-style-type: none"> • Too much slowing and stopping along corridor due to turbulent traffic flow 	<ul style="list-style-type: none"> • Signal spacing and coordination improvement
	<ul style="list-style-type: none"> • Too much slowing and stopping along intersection approaches due to traffic-control issues • Drivers caught in intersection during red phase due to inadequate traffic control or inadequate clearance interval • Traffic signal not conspicuous or visible to approaching drivers, causing sudden and unexpected slowing or stopping movements 	<ul style="list-style-type: none"> • Traffic control improvement • Enforcement of red light running and aggressive driving
	<ul style="list-style-type: none"> • Drivers unable to stop in time due to road surface 	<ul style="list-style-type: none"> • Pavement/crosswalk improvements
	<ul style="list-style-type: none"> • Sudden and unexpected 	<ul style="list-style-type: none"> • Individual movement treatments

	<ul style="list-style-type: none"> • slowing or stopping due to inadequate intersection capacity 	<ul style="list-style-type: none"> • Enforcement to discourage aggressive driving
Angle	<ul style="list-style-type: none"> • Drivers caught in intersection during red phase due to inadequate traffic control or inadequate clearance interval • Traffic signal not conspicuous or visible to approaching drivers, causing drivers to get caught in intersection during red phase • Drivers caught in intersection during red phase due to inadequate warning/inability to stop 	<ul style="list-style-type: none"> • Traffic control improvement • Approach improvement • Enforcement to discourage red light running and aggressive driving
Left-Turn Collisions	<ul style="list-style-type: none"> • Intersection cannot accommodate left-turn movements safely 	<ul style="list-style-type: none"> • Alternative intersection treatments • Individual movement treatments
Collisions Involving Bicycles or Pedestrians	<ul style="list-style-type: none"> • Either the intersection cannot safely accommodate the pedestrians and/or the bicyclists, or motorists are failing to see or yield to their movement 	<ul style="list-style-type: none"> • Pedestrian, bicycle and/or transit improvements • Enforcement of aggressive driving

Final Report Documentation

This section should describe how to document all aspects of the analysis, what will be included in the appendix, and what will be submitted as part of the final report, etc.

The final assumption document should be signed off by the FHWA AE, UDOT, and any other stakeholders as appropriate.

Appendix E – Interstate Access Change Request (IACR) Template

Executive Summary

A clear and concise summary should be provided at the beginning of the report explaining how the two required Policy points in Appendix A have been satisfied, along with how the collective assessment of each Policy requirement provides the basis for the recommended change in access. It is recommended that a summary of the analysis that was performed, the methods and tools utilized, the assumptions, and the conclusions are included. Information also will include a description of the process followed to analyze different access changes and other transportation improvement alternatives considered and selected as the proposed recommendation (such as Interstate System facility, ramps, ramp terminal, crossroad, or local street network).

Chapter 1: Introduction

An introduction to the project should be provided that summarizes the following:

Background – This section should identify any supporting information from previous studies or data acquired to introduce the project and support the project purpose.

Purpose – The project’s purpose and objectives should be identified with quantified measures highlighting the existing and desired safety, operational and access condition.

Need - The need for improvement should be established using factors such as existing conditions and the conditions anticipated to occur in the analysis years under the No-Build Alternative, or other factors such as the need for system linkage.

Project Location – Include aerial photography of the project area and area of influence, a map displaying the subject interchange location, and a brief description of the preliminary area of influence. Maps should be to scale or be schematic drawings showing distances between interchanges, intersections, and other key features. The subject interchange location should be identified by milepost, relationship to adjacent interchanges, and system linkages. Factors used to define the area of influence should be discussed, including interchange spacing, signal locations, anticipated traffic impacts, anticipated land use changes, or proposed transportation improvements.

Chapter 2: Methodology

This section should summarize the methodology used to develop the Interchange Access Change Request. The discussion should provide sufficient detail for the reader to understand the processes used.

This section should also document the development of the future-year design traffic for each alternative. Information to be contained should include network and project validation, future travel demand projections, and the design traffic projections.

Chapter 3: Existing Conditions

This section should identify the conditions that existed in the project's base year. Text, figures, and tables should be used as appropriate to describe the existing land use, transportation system, demand, performance, and environmental conditions considering the following:

Demographics – This section should identify significant population and employment statistics within the project area of influence. Summary for traffic analysis zones for the base year from the selected travel demand forecasting model should be included.

Existing Land Use – Existing land use within the project area should be summarized by general land use classifications (residential, commercial, industrial, institutional, recreational, etc.). Major developments within the study area should be identified.

Existing Roadway Network – Facilities within the project area of influence should be identified by functional classification, cross section, and access control (e.g., limited or controlled-access). In addition to a discussion, a figure should be provided illustrating each facility within the study area.

Alternative Travel Modes – Existing single occupant vehicle (SOV) alternatives related to the project should be identified in this section. These modes may include special use/HOV, park and ride, bus transit, fixed-guide way mass transit, airports, ports, and forms of non-motorized transportation facilities. A figure should be provided illustrating the location of these modes.

Interchanges – This section should describe the existing configuration, geometry and other design features of existing interchanges in the area of influence, including identifying any elements that do not meet current design standards. This section should also identify any approved but not yet constructed interchanges, and define their geometry and status. Also, any other interchanges being developed in the area of influence should be identified.

Existing Data – This section will discuss existing data source(s) and quality of the data.

Operational Performance – This section will summarize the results of the operational analysis including the methodology, assumptions, and conclusions. A comparison of the no-build and multiple build conditions considered should be provided along the Interstate facility and the local roadway network to support the need for the project. Tables and figures should be employed to summarize operational performance.

Existing Safety Conditions – This section will summarize an analysis of the safety performance of the existing conditions including existing crash data supporting the need for the project. Any strategies used to mitigate safety concerns should be discussed. A comparison of the no-build and multiple build conditions considered should be provided along the Interstate facility and the local roadway network to support the need for the project. Tables and figures should be employed to summarize operational performance.

Chapter 4: Future Condition

Future Land use – This section should discuss the future land use of the area, and how it affects the operation of the proposed Interstate access. The future / forecasted land use should be consistent with the local land use Policy and comprehensive land use plan.

Forecast Traffic Volume – This section should provide a base map that displays the future year traffic volume for all locations within the study area.

Other – This section can be used to describe any other factors that could affect the design, operation, or safety issues of the proposed facility.

Chapter 5: Interchange Alternatives

This section will discuss the alternatives considered. A brief narrative regarding location and design elements should be provided for each alternative. At a minimum, the following alternatives will be considered:

- No-Build Alternative.
- Improvements to Alternate Interchanges.
- Transportation System Management Alternative.
- Alternatives Providing a Change in Access.

Each of these alternatives should be identified in independent sections. The proposed modifications and engineering factors including structures, landscaping, schedule, cost, and traffic control devices should be discussed for each alternative considered.

Chapter 6: Compliance with Policy Point #1

This section will discuss the analysis of alternatives based on engineering policies and standards, traffic operations, and safety impacts using the evaluation criteria agreed to in the coordination meetings with FHWA. This analysis would normally consider, at a minimum, the following:

Operational Performance – The documentation of the operational analysis should provide sufficient information for an independent review, if needed, and proper documentation of the process is required depending on the tools used for the analysis. A multi-hour or multi-time period analysis will be anticipated for study areas experiencing or anticipating saturated or congested operating conditions.

Safety – The effects on safety (increase or decrease in the type, number, and severity of crashes) of the proposed project should be discussed. This section should also discuss the project's effects on public safety issues such as emergency services and evacuations.

Evaluation Matrix – This section will present an analysis of the alternatives using various criteria to assess the impacts and potential consequences for the proposed change in access.

Chapter 7: Compliance with Policy Point #2

Chapter 8: Compliance with Engineering Standards

Chapter 9: Funding Plan

This plan will identify the specific funding programs or private sources needed to support all the improvements proposed. Project revenue requirements will be discussed if the project is a toll project.

Chapter 10: Recommendation

This section will discuss the preferred alternative selection and any recommendations for further action, such as programming the NEPA or design phases.

Appendices

Appendices will be used for other supporting documents such as traffic operational analysis documentation. Lane configuration schematic and figures illustrating the existing geometry overlaid with proposed geometry are recommended. These figures should clearly show dimensions for the acceleration and deceleration lane spacing, lane transition taper lengths, auxiliary lanes, and interchange spacing (measured from the centerline of grade-separation structures).

Appendix F – Notice 1100.4: Revised Chapters to FHWA Delegations of Authority Order M1100.1A – Interstate Access

Notice

Subject

Revised Chapters to FHWA Delegations of Authority Order M1100.1A – Interstate Access

Classification Code

Date

Office of Primary Interest

N 1100.4

November 25, 2014

HIF

1. **What is the purpose of this Notice?** The purpose of this Notice is to revise the Federal Highway Administration's (FHWA) delegations of authority for approval of engineering and operational acceptability of points of ingress and egress with the Interstate System (justification reports) and approvals for changes in the degree of access control, and to establish the authority for FHWA Division Administrators to approve and execute Programmatic Agreements (PA) for processing and approving engineering and operational acceptability (justification reports) and changes in the degree of access control for certain types of projects. Specifically, this Notice:
 - a. Delegates authority to the FHWA Executive Director for review and approval for engineering and operational acceptability of points of ingress and egress with the Interstate System (justification reports) and approvals for changes in the degree of access control except as otherwise delegated to the Division Administrators. This delegation to the Executive Director includes:
 1. (1) New freeway-to-freeway interchanges;
 2. (2) Modification of freeway-to-freeway interchanges; and
 3. (3) New partial interchanges or new ramps to/from continuous frontage roads that create a partial interchange.

This authority may not be redelegated.
 - b. Delegates authority to FHWA Division Administrators for review and approval for engineering and operational acceptability of points of ingress and egress with the Interstate System (justification reports) and approvals for changes in the degree of access control for:
 1. (1) New freeway-to-crossroad interchanges;
 2. (2) Modification of existing freeway-to-crossroad interchanges;
 3. (3) Completion of basic movements at existing partial interchanges;
 4. (4) Locked gate access; and
 5. (5) Abandonment of ramps or interchanges.

This authority may not be redelegated.
 - c. For certain types of projects, delegates authority to FHWA Division Administrators for approval and execution of PAs with States to allow States to approve engineering and operational acceptability (justification reports) pursuant to 23 U.S.C. 111(e), and to provide for streamlined processes for approvals for changes in the degree of access control. This authority may not be redelegated.
2. **What is the background information?** Section 1505 of the Moving Ahead for Progress in the 21st Century Act (MAP-21) provides the Secretary the option of allowing State departments of transportation (DOT) to review and approve access justification reports for changes in access to the

Interstate System. Further, Section 1318(d) of MAP-21 provides the authority for FHWA to enter into PAs with State DOTs for carrying out project reviews. Therefore, FHWA has identified the opportunity to streamline the review and approval process for certain types of requests for changes in Interstate System access by entering into PAs with State DOTs and by revising the delegation of authority for approval of operational and engineering acceptability of points of ingress and egress with the Interstate System (justification reports) and approvals for changes in the degree of access control for certain types of projects.

3. **What changes are being made?** References to the authorities in the FHWA Delegations and Organization Manual, FHWA Order M1100.1A, Part 1, Delegations of Authority, Chapter 3, Section 2 and Chapter 5, Sections 2 and 3 are superseded to allow streamlining of the Interstate access review and approval process in accordance with MAP-21 Sections 1318(d) and 1505 (refer to the attachment for the summary delegation of authority for access requests on the Interstate System).
 - a. The following reference to Reservations by the Administrator for authority to approve engineering and operational acceptability for changes of points of ingress and egress with the Interstate System and certain types of changes in the degree of access control is no longer reserved by the Administrator and the following paragraph is therefore deleted:

Chapter 3, Section 2, Paragraph 15(i):

- b. The following reference to Right-of-Way Relinquishment and Changes in Control of Access is revised as follows:

Chapter 5, Section 2, Paragraph 14(c):

1. Division Administrators are delegated authority to approve changes in the degree of access control and approve engineering and operational acceptability of changes in points of ingress and egress with Interstate through traffic lanes and with interchange ramps on completed sections of the Interstate System (justification reports) as specified in Chapter 5, Section 3, Paragraph 20(b) only after completion of the planning and environmental processes. This authority may not be redelegated.
 - c. The following reference to Authorizations to Proceed is revised to delegate the authority to approve changes in the degree of access control and engineering and operational acceptability of changes in points of ingress and egress with Interstate through traffic lanes and with interchange ramps on completed sections of the Interstate System (justification reports) to FHWA Division Administrators as follows:

Chapter 5, Section 3, Paragraph 20(b):

1. FHWA Division Administrators are delegated the authority to approve changes in the degree of access control and approve engineering and operational acceptability of changes in points of ingress and egress with Interstate through traffic lanes and with interchange ramps on completed sections of the Interstate System (justification reports) for all projects in Alaska and Puerto Rico and for the following types of projects in other States: new freeway-to-crossroad interchanges, modification of existing freeway-to-crossroad interchanges, completion of basic movements at existing partial interchanges, locked gate access, and abandonment of ramps or interchanges. Approval of a change in the degree of access control may be made only after approval of the engineering and operational acceptability justification report and completion of the planning and environmental processes. This authority may not be redelegated.
 - d. The following reference to establish authority to approve changes in the degree of access control and engineering and operational acceptability of changes in points of ingress and egress with Interstate through traffic lanes and with interchange ramps on completed sections

of the Interstate System (justification reports) on the Interstate System for the Executive Director is added:

Chapter 5, Section 3, Paragraph 20(p):

1. The FHWA Executive Director is delegated the authority to approve changes in the degree of access control and approve engineering and operational acceptability of changes in points of ingress or egress with Interstate through traffic lanes and with interchange ramps on completed sections of the Interstate System (justification reports), except as delegated to the FHWA Division Administrators in Chapter 5, Section 3, paragraph 20(b) of this Part. Approval of a change in the degree of access control may be made only after approval of the engineering and operational acceptability justification report and completion of the planning and environmental processes. This authority may not be redelegated.
- e. The following reference to Agreement Approvals is added to establish the authority to approve and execute PAs for processing access requests for Division Administrators:

Chapter 5, Section 3, Paragraph 22(f):

1. FHWA Division Administrators are delegated the authority to approve and execute Programmatic Agreements with State highway agencies that permit the State to approve engineering and operational acceptability of points of ingress and egress with the Interstate System (justification reports) pursuant to 23 U.S.C. 111(e). A Programmatic Agreement also may adopt streamlined procedures for processing approvals for changes in the degree of access control. Programmatic Agreements under this delegation may apply only to the following types of access requests:
 1. 1) New freeway-to-crossroad interchanges and modifications to existing freeway-to-crossroad (service) interchanges outside of Transportation Management Areas (TMA);
 2. 2) Modifications to freeway-to-crossroad (service) interchanges inside of TMAs; and
 3. 3) Completion of basic movements at existing partial interchanges.

This authority may not be redelegated.

4. **What action is required?** The Office of Program Administration will process the revisions to the delegations of authority above and the FHWA Delegations and Organization Manual will be updated to reflect these changes.



Gregory G. Nadeau
Acting Administrator

Attachment:

Summary of Delegations of Authority to Approve Changes in the Degree of Access Control on Interstate Highways

Proposed Type of Access	Delegated to FHWA Executive Director *	Delegated to Division Administrator
New Freeway-to-Freeway Interchange	X	
Modification of Freeway-to-Freeway Interchange	X	
New Partial Interchange or New Ramps To/From Continuous Frontage Roads That Create a Partial Interchange	X	
New Freeway-to-Crossroad Interchange		X
Modification of Existing Freeway-to-Crossroad Interchange		X
Completion of Basic Movements At Existing Partial Interchange		X
Locked Gate Access		X
Abandonment of Ramps or Interchanges		X
*Any authority to approve changes in the degree of access control not listed in this table is delegated to the Executive Director and may not be redelegated.		